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L8: Entry 1 of 1

File: DWPI

Jul 31, 2003

DERWENT-ACC-NO: 2000-534544

DERWENT-WEEK: 200350

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TITLE: Apparatus for utilizing heat produced during catalytic reactions has a gas impermeable heat-conducting separating wall formed between a heater/vaporizer and an element

INVENTOR: LAMLA, O; SALING, C ; SCHUESSLER, M

## PATENT-ASSIGNEE:

ASSIGNEE

CODE

DBB FUEL CELL ENGINES GMBH

DBBFN

BALLARD POWER SYSTEMS AG

BALLN

XCELLSIS GMBH

XCELN

PRIORITY-DATA: 1999DE-1007665 (February 23, 1999)

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## PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
<input type="checkbox"/> <a href="#">DE 19907665 C2</a>	July 31, 2003		000	B01J008/00
<input type="checkbox"/> <a href="#">EP 1031374 A2</a>	August 30, 2000	G	010	B01J008/02
<input type="checkbox"/> <a href="#">DE 19907665 A1</a>	August 31, 2000		000	B01J008/00
<input type="checkbox"/> <a href="#">JP 2000237582 A</a>	September 5, 2000		007	B01J019/24
<input type="checkbox"/> <a href="#">JP 3418149 B2</a>	June 16, 2003		007	B01J019/24

DESIGNATED-STATES: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL  
PT RO SE SI

## APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
DE 19907665C2	February 23, 1999	1999DE-1007665	
EP 1031374A2	December 24, 1999	1999EP-0125847	
DE 19907665A1	February 23, 1999	1999DE-1007665	
JP2000237582A	February 22, 2000	2000JP-0044748	
JP 3418149B2	February 22, 2000	2000JP-0044748	
JP 3418149B2		JP2000237582	Previous Publ.

INT-CL (IPC): B01 J 8/00; B01 J 8/02; B01 J 19/24; C01 B 3/32; C01 B 3/38; C01 B 3/58

ABSTRACTED-PUB-NO: EP 1031374A

BASIC-ABSTRACT:

NOVELTY - A gas impermeable heat-conducting separating wall (10) is formed between the first and second regions. The flow direction of the reaction products in the second region runs vertically to the parting plane on cooling and/or heating limited by the partial catalytic reaction and/or further reaction.

DETAILED DESCRIPTION - Apparatus for utilizing heat produced during catalytic reactions comprises a first region (heater/vaporizer) (1) for heating, especially vaporizing, an educt to be reacted, especially a reaction mixture, and a second region (3) (element) for partially carrying out the catalytic reactions and/or further reactions of reaction products produced during the catalytic reactions and/or for partially cooling the reaction products. The first region and the second region are connected to each other by heat conduction. A gas impermeable heat-conducting separating wall (10) is formed between the first and second regions. The flow direction of the reaction products in the second region runs vertically to the parting plane on cooling and/or heating limited by the partial catalytic reaction and/or further reaction.

USE - In the production of hydrogen from a reaction mixture containing a hydrocarbon, especially methanol, and water (methanol reforming) (claimed).

ADVANTAGE - The apparatus components are small.

DESCRIPTION OF DRAWING(S) - The drawing shows a schematic side view of an apparatus for producing hydrogen.

heater/vaporizer 1

element 3

heat-conducting separating wall 10

CHOSEN-DRAWING: Dwg.6/6

TITLE-TERMS: APPARATUS UTILISE HEAT PRODUCE CATALYST REACT GAS IMPERMEABLE HEAT CONDUCTING SEPARATE WALL FORMING HEATER VAPORISE ELEMENT

DERWENT-CLASS: E36 H06 J04

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CPI-CODES: E31-A02; H06-A; J04-E01;

CHEMICAL-CODES:

Chemical Indexing M3 \*01\*

Fragmentation Code

C101 C550 C810 M411 M424 M720 M740 M904 M905 N513

N514 Q417

Specific Compounds

01532K 01532P

Registry Numbers

1532P 1532U

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Chemical Indexing M3 \*02\*

## Fragmentation Code

H4 H401 H481 H8 M210 M211 M272 M281 M320 M416  
M620 M730 M904 M905 M910

## Specific Compounds

00270K 00270S

## Registry Numbers

0270S 0270U

## Chemical Indexing M3 \*03\*

## Fragmentation Code

C101 C108 C550 C730 C800 C801 C802 C804 C805 C807  
M411 M730 M904 M905 M910

## Specific Compounds

01740K 01740S

## Registry Numbers

1740S 1740U

UNLINKED-DERWENT-REGISTRY-NUMBERS: 0270S; 0270U ; 1532P ; 1532U ; 1740S ; 1740U

## SECONDARY-ACC-NO:

CPI Secondary Accession Numbers: C2000-159519

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